UNIT 5 LONG-TERM RECOVERY*

Structure

5.0 OBJECTIVES

After reading this Unit you should be able to:

- Explain the concept of long-term recovery and its guiding principles;
- Identify the various aspects of long-term recovery;
- Discuss the principles of post-disaster recovery; and
- Examine the challenges of long-term recovery process.

5.1 INTRODUCTION

The process of strengthening resilience, be it of a person, family, or community, after a tragedy, is called disaster recovery. Even while this is essential, rebuilding structures, systems, and services is only one aspect of recovery. It is also important to address the root issues of unfair and inequitable recovery processes to make it easier for persons and their kin to recover from their losses and maintain their financial, psychological, and emotional health. Every disaster has its own recovery process, and the long-term recovery extends beyond immediate relief and clean-up to actual house and life reconstruction, which might take months or years.

The International Strategy for Disaster Reduction (ISDR) defines recovery as the "decisions and actions taken after a disaster with a view to restoring or improving the pre-disaster living conditions of the stricken community while encouraging and facilitating necessary adjustments to reduce disaster risk".

Contributed by: Prof. Dharmendra Mishra, Professor of Public Administration, MLV Government College, Bhilwara, Rajasthan.

Recovery efforts after a disaster may be divided into two categories: short-term and long-term. The short-term recovery operations include removal of remnants of previously damaged structures, providing temporary place to live, assuring sanitation, and reconnecting lifelines. Long-term actions include creating a safer and more sustainable living.

Floods, earthquakes, and cyclones cause far more damage than other natural disasters, and recovering from these events is difficult. In calamities such as droughts, the time taken in recovery is long, and because the infrastructure and property remain undamaged, the recovery and rehabilitation is primarily focussed on livelihoods and other developmental phases. In the case of epidemics, some of the recovery steps take the form of sanitising the area to prevent further outbreaks and may include victim therapy.

Because industrial disasters vary in character, recovery in big ones such as the 'Bhopal Gas Tragedy' may include rehabilitation operations that may continue for prolonged durations, in addition to helping them back in terms of occupations and their social and emotional wellbeing. Recovery after calamities such as landslides and avalanches is localised and comparable to that of earthquakes, although on a smaller scale.

Disaster may become an opportunity for growth if the relief efforts are not solely focused on bringing back the lives of the affected to the pre-disaster levels but trying to set their lives on course of greater development. Attention also needs to be paid to the avoidance of 'circularity of risk', which for instance, happens when any dam left unrepaired post-earthquake may result in loss of water and increase the conditions of drought, or when after a major financial distress, the government fails to come to the rescue of poor people in the form of relief packages, making them vulnerable to any future crises.

A long-term disaster recovery strategy is not the same as planning for a disaster response. Preparing for disaster recovery entails determining strategic infrastructure repair, improvement, and growth goals. Each disaster is different, and the quantity and kind of damage will differ, affecting long-term rehabilitation. Prior to a disaster, recovery planning, mitigation planning, and preparedness should all be completed, and it is critical to build a recovery plan that includes clear leadership, decision-making frameworks, and stakeholder participation. This plan should also include criteria for determining redevelopment goals in terms of economic sustainability and growth, environmental issues, and historical preservation. This plan is essentially a guide for identifying goals and priorities in the event of crisis.

When a disaster enters the recovery phase, companies and government agencies are accountable for both their usual daily operations and the functions demanded by the recovery efforts. Furthermore, many external resources, such as volunteers and money, begin to dwindle. Some jurisdictions form long-term recovery groups (LTRG) to organise long-term rehabilitation initiatives and address the requirements of the community.

After stabilising the situation by giving adequate assistance, the first step is to assess the damage. A thoroughly completed evaluation would serve as an excellent foundation for efforts to recover. This process is best done by multidisciplinary groups that investigate various elements of harm (social,

economic and psychological) thoroughly with the cooperation of the local community.

A recovery strategy must be developed based on an evaluation of the damage and the needs of the affected. The efforts should be holistic, including financial, emotional, and social aspects. There should be proper identification of available resources, and everyone's duties and responsibilities should be outlined.

It is seen several times that recovery efforts after any disaster tend to prioritise quick remedies that bring lives back to normal levels, at the expense of long-term growth. The recovery period immediately after any disaster presents an opportunity, wherein the possibilities of damages in future disasters could be reduced. Thus, efforts should be made to incorporate such processes for reconstruction that would lead to protection from any damages from any future calamities. UNHSP (United Nations Human Settlements Programme) emphasises this element in terms of shelter.

Thus, we can conclude that recovery from any disaster entails bringing back the affected people from the throes of sufferings and agony to the pre-disaster levels of financial, social, and emotional routines. Since every region has its unique characteristics, the recovery path and the time taken for achieving previous levels of normalcy also vary accordingly. As previously observed, the long-term damage assessment aids in restoring normalcy and building back better. It is critical to highlight that catastrophe recovery and response cannot occur independently. A well-planned recovery procedure is built on an effective reaction.

The state, local, and federal/national governments are all part of the public sector. Disaster recovery has *three* primary functions:

i) Household recovery

ii) Business recovery

iii) Community recovery

Recovery involves a wide range of institutional players, including the public and corporate sectors, non-governmental organisations (NGOs), communities, emerging organisations, and volunteers.

5.2 KEY ASPECTS OF LONG-TERM RECOVERY

- **Shelter**

In post-crisis contexts, one of the most evident and pressing requirements is shelter. Relief operations are frequently focused on providing shelter as soon as possible, without considering the implications of short-term shelter methods. Long-term shelter plans assist in determining and implementing realistic and long-term reconstruction plans for affected communities, and also in helping regain community confidence and recreating support structures for public engagement and city governance, by inclusive reconstruction planning.

Difficulties in housing reconstruction are inextricably linked to disaster mitigation concerns. The creation of low disaster risk or springing back housing is a crucial aspect in lowering disaster susceptibility. Nonetheless, the challenge

in building such houses goes beyond the constraints concerning structures and design. Possession rights and assurance of duration of ownership make a huge impact in the upkeep, administration, and development of housing, especially in metropolitan settings.

Typically, as time passes by, rehabilitation attempts are observed to taper down. The Bureau for Crisis Prevention and Recovery also noted "the general experience that once the initial rush of activities of delivering rescue and relief is over, the attention received by recovery efforts steadily declines over time and 'business as usual' sets in". Efforts should be made to prevent the slowing down of recovery efforts as time passes by. This might be accomplished by establishing community-based monitoring systems and conducting impact evaluation studies on a regular basis through independent bodies. The approach to recovery should include actions to decrease vulnerability by increasing community resilience. This might be accomplished by community capacity development, raising awareness, and developing local crisis management strategies.

- **Accountability**

A crucial challenge that emerges is how to optimist the performance of key stakeholders. In this context, one essential way forward looks to be the institutionalisation of effective accountability procedures. The accountability mechanisms are expected to play an important role in the many stages of the disaster management cycle, including response, recovery, rehabilitation, reconstruction, prevention, mitigation, and preparedness. In many cases, the absence of such processes would diminish the efficacy of interventions.

Accountability, as is generally known, is an essential component of successful government. However, in many nations, responsibility is limited to financial accountability. Although financial accountability is essential for eliminating the illicit use of public money and ensuring that benefits reach the intended recipient groups, economic accountability regulations fail to stretch far enough to guarantee the fulfillment of prospective and actual needs of disaster vichms. This fact necessitates broadening the area of responsibility to encompass the worries of the recipients. In general, bottom-up accountability techniques are required to monitor the real effect of external initiatives by means of their results on the ground. During the relief and restoration phase, a structure of accountability must be developed. This system should guarantee that relief materials reach the intended recipients and that finances are used efficiently and effectively. A grievance redressal procedure should also be established.

- **Finance**

To fulfill their mandate of recommending measures for "financing relief expenditure on account of natural calamities," subsequent Finance Commissions have included suggestions to allow states to respond to the urgent demand for funds to deal with the emergencies caused by such calamities. At the moment, such arrangements take the form of the Calamity Relief Fund (CRF), a readily available source of meeting immediate expenditure that is shared in a 3:1 ratio between the Union and the states, and the National Calamity Contingency Fund (NCCF), an avenue of meeting extra financing requirements for especially severe natural disasters that is financed solely by the Union Government through a surcharge on certain central taxes.

These funds have typically allowed authorities to intervene to ease the immediate suffering caused by natural disasters and compensate for losses. Due to lack of resources, long-term recovery and planning could not receive the attention they need. Section 46 of the Disaster Management Act of 2005 prescribes the creation of two funds: the "National Disaster Response Fund" and the "National Disaster Mitigation Fund." Similar funds will be established at both the district and state levels as well. Long-term mitigating measures, which are capital-intensive, must be implemented as part of the national plan or the state plan of the relevant Ministry/Department. Modalities for combining Mitigation Fund projects and other projects funded by other schemes would need to be worked out. The National Disaster Management Authority may be asked to finalise such procedures as well as provide recommendations for the use of Mitigation Funds at the national, state, and district levels. Similarly, criteria for the 'Response Fund' would need to be developed.

- **Community Participation**

Thousands of residents in Kutch waited for years for the authorities to build their homes after the Gujarat earthquake. Houses built by contractors were often of poor quality and they would fall back to practice of building houses that could not tolerate seismic conditions. Owner-built houses, on the other hand, serve to internalise the know-how and stimulate experimentation through diverse techniques and technology combinations after individuals are provided technical advice on seismic safety measures. Involving the community in the planning process aids in meeting specific rural demands, like provision for granary, animal sheds and dairy farming.

- **Coordination**

Following an enormous tragedy, several players reach the arena, and good coordination among them becomes critical. Recovery efforts are undertaken by public agencies, local authorities, foreign organisations, voluntary agencies, and others simultaneously, generally making random and haphazard efforts. This results in operational confusion, duplication, and concentration of efforts in particular regions and deficits in different areas, and imprudent usage of resources. As a result, building a coordinating structure is essential for efficient rehabilitation. Non-governmental agencies, notably global ones, like the Red Cross and teams sent by foreign countries, play a crucial role in reducing the effect of disasters. Voluntary organisations are frequently better able to manage various parts of disaster assistance and recovery. To avoid concentration of relief efforts in particular areas, local authorities need to set up coordination units to better utilise the activities of voluntary agencies.

Check Your Progress 1

Note: i) Use the space given below for your answer.

ii) Check your answer with that given at the end of the Unit.

1) Bring out the various aspects of long-term recovery.

.....

.....

.....

.....

.....

5.3 GUIDING PRINCIPLES FOR POST-DISASTER RECOVERY

The principles for post-disaster recovery in any country need to focus on contextual understanding of disasters, their complexity, coordination of all activities put in by several stakeholders, communicating effectively and building capacities. The National Disaster Recovery Framework of USA is guided by nine core principles:

- Individual and Family Empowerment
- Leadership and Local Primacy
- Pre-disaster Recovery Planning
- Partnerships and Inclusiveness
- Public Information
- Unity of Effort
- Timeliness and Flexibility
- Resilience and Sustainability

Guiding Principles for Post-Disaster Recovery according to United Nations Development Programme, Bureau for Crisis Prevention and Recovery - Disaster Reduction Unit are as follows

- Disaster risk mitigation should be included in the recovery/development process.
- Improving/enhancing coordination
- Promoting participative methods and decentralised recovery planning and programming.
- Increasing safety standards and incorporating risk reduction measures into reconstruction and development.
- Raising the living conditions of affected populations and sectors.
- Increasing local and nationwide capacities for resilience, risk management, and long-term development.
- Making use of ongoing efforts.
- Gender sensibility.
- Effects that can be seen in action.
- Supervising, assessing, and learning

Disaster recovery is a comprehensive activity that encompasses key components of prevention, preparedness and response. It focuses on physical, social, economic, psychological, environmental elements aimed at building a resilient community.

5.4 ISSUES IN DISASTER RECOVERY

Communities that have been devastated by a natural disaster are frequently rebuilt utilising the same materials, methods, and places. In essence, it seems

to be a futile exercise as it doesn't change the risk status of buildings. While there are clear reasons for this, there are strong reasons to use the post-disaster recovery phase to implement changes that will lower disaster risk. Sound structures in safe places can increase the possibility of communities minimising risks associated with a variety of frequency and severity of calamities. This necessitates the development and adherence to fundamental components such as construction guidelines and planning legislation, as well as adequate procedures for frequent monitoring and enforcement.

However, in nations where the informal sector accounts for a considerable proportion of housing and urban growth, updating building rules and planning laws may have minimal influence. As a result, efforts are required to train amateur builders in safe building procedures, as well as to train and certify building inspectors and to implement building rules and regulations. Similarly, appropriate planning techniques to minimise building on or near fault lines, floodplains, or unstable slopes would improve the delivery of basic commodities and assure survival in the aftermath of a disaster. After the impact, there is a window of time (up to 6 months) during which political decision-makers might be convinced to include DRM (Disaster Risk Management) strategies in post-impact reconstruction operations.

Check Your Progress 2

Note: i) Use the space given below for your answer

ii) Check your answer with that given at the end of the Unit.

1) Write a note on the issues in long-term delivery.

.....

.....

.....

.....

.....

5.5 TRANSITIONING FROM DISASTER RESPONSE TO DISASTER RECOVERY

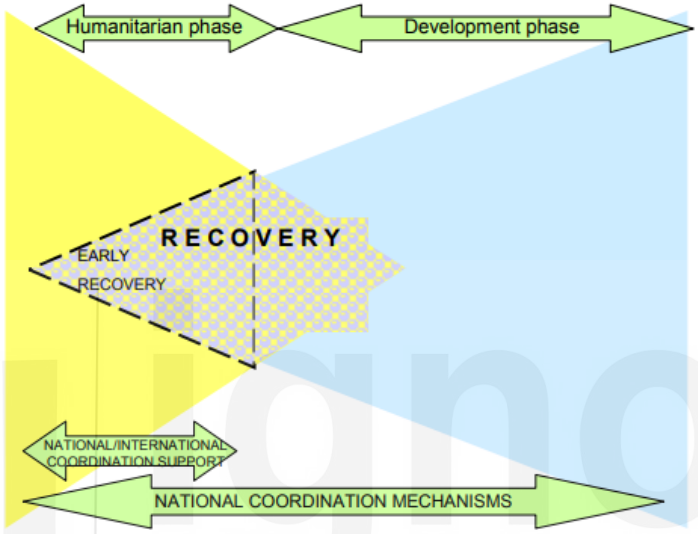
While emergency response efforts are underway, disaster recovery activities go on the floors. While the prime actions vary, decisions made during the reaction phase have a direct impact on the recovery action plan. Unlike the initial response stage of an emergency, where all efforts are focused on rescuing and preserving lives, the function of disaster recovery is defined by a complex collection of concerns that might have long-term consequences for the community. Recovery is most likely to occur when the afflicted community has a high degree of self-determination. Recovery entails more than just recovering physical assets and delivering welfare services. Successful recovery plan encompasses the needs of all the stakeholders and fulfil them in a well-coordinated manner.

'Early recovery' refers to the shift from reaction to recovery. Early recovery aims to build on disaster relief efforts to crystallise prospects for long-term

development. It is not a distinct phase of the relief-development spectrum, but rather an endeavour to reinforce existing ties. Early recovery operations seek to:

- Ensure a seamless change as the emergency activities eliminate.
- Encourage on the spot recovery steps and minimise the risk of rebuilding.
- Lay the groundwork for long-term recovery.
- Incorporate risk-reduction strategies into rehabilitation and development efforts.

Figure 5.1: Shift from reaction to disasters to disaster recovery



Source: Adapted from IASC, 2006. Implementing Early Recovery. Inter-Agency Standing Committee. United Nations. New York.

5.6 CONSIDERATIONS FOR EFFECTIVE LONG-TERM RECOVERY

The long-term recovery needs to integrate certain key components as discussed below:

- **Making Decisions based on Empirical Evidence**

Any planning and decision-making must be based on credible evidence from impact assessments. This data should additionally include updated vulnerability assessment and improved hazard assessment information.

- **Creating a Recovery Centre**

Create a recovery centre or examine current agreements to ensure that present recovery centre processes are adequate and appropriate for the current situation. Consider the idea of establishing local "one-stop recovery shops" where all required agencies, utilities and services that the local population and corporate enterprises require to re-establish themselves may be found at one spot. These local recovery centres should be linked to the central recovery centre as well as their respective operational headquarters.

- **Utilising Existing Structures**

Retaining the inter-organisational status quo is critical to the successful implementation of post-impact interventions. Recovery methods and practises

should, if feasible, be built on existing organisational structures rather than building new ones. This is due to two major factors. First, existing organisations have developed processes and networks that make 'getting things done' simpler and faster. Second, regardless of whether they have high-level support from politicians, new organisations lack operational legitimacy after they have proven their competence on the ground.

Any lapse or delay by a new body will be interpreted as an indication of insufficiency by established organisations, which will be ready to exert their own sense of authority on new disaster-related activities. As a result, one view is that it is preferable to allocate new recovery functions to existing organisations. An important outcome to this is that new informal organisations will develop at the grassroots level wherever a gap is detected in existing formal frameworks or where an essential need is seen as not being met by established organisations - this is normal, and authorities should recognise the fact that these 'emergent organisations' are an important part of the regional groups attempting to reinstate itself by changing the controllables.

- **Debris Management**

Debris from natural disasters is a logistical challenge in itself. Special consideration must be given to the safe removal and disposal of debris that result from catastrophes ("rubble removal"), which if not handled properly may cause environmental and/or health concerns in the future. Some debris will be polluted (for example, from industrial and medical waste) and will need to be treated before they can be disposed of securely. Some garbage can be recycled, but stringent criteria and monitoring methods must be implemented to guarantee that recycled objects are properly recognised.

- **Involving Affected Communities**

Individual disaster preparedness is crucial for mitigating and minimising the harmful effects of disasters. Preparing for future catastrophes may improve the ability to cope with external shocks and enable a speedier return to normality following a catastrophic occurrence. We must keep in mind that disaster management, particularly disaster recovery is something that concerns the entire community. We must examine and enhance present relationships with the commercial sector and civic society in the framework of disaster risk management. We should remember that livelihood restoration is a top concern. To guarantee community ownership and entrustment, and to ensure locally suitable solutions, we should make choices on planning, design, and execution at the lowest level feasible. Community-level dialogues are the best way to address sensitive subjects such as the need for and distribution of victims for interim housing, and eventually permanent housing. We must mobilise private investment, both human and financial, and if required, give incentives and technologies to the private sector in the region so that it can fully engage in reconstruction.

- **Integrating Special Needs**

During post-disaster period, the elderly, single, pregnant, lactating, and disabled persons need assistance on a long-term and sustained basis. Women are a special category and generally given a marginalised datus in such situations. In fact, the workload of women and their special needs gain significance in post-disaster situations. Also, this situation provides an opportunity for them to challenge and

change their gendered status in society. Following Hurricane Mitch in 1998, women in Guatemala and Honduras were seen building houses, digging wells and ditches, hauling water and building shelters (Bradshaw,2002). According to report by UN- HABITAT, when women are empowered, they have the capacity and the inner will to improve their situation and gain control over their own lives. Further, it states that this can lead to an equal share in economic and political decision making, and control of economic resources (*Cited in* Nirooje,2008)

- **Identifying Resource Sources**

We must determine the resources that may be necessary and feasible. The selection of resources must take into consideration the reality that disaster recovery is a lengthy process that might take many years if not decades. Alternative sources of resources, as well as a procurement time-frame, should be identified. The process of resource identification and procurement should begin as soon as feasible in order to avoid putting undue strain on existing production and supply schedules. We must also keep in mind that transportation of goods to the damaged region is frequently a bottleneck, thus delivery and distribution operations must be prioritised. In terms of coordinating rebuilding money from external organisations, one possibility that might be investigated is the establishment of a multi-donor fund, which has been employed in certain current reconstruction programmes.

- **Exploring Development Opportunities**

The government must examine relevant development plans and explicitly relate recovery measures to them, keeping in mind past occurrences of disasters, frequently present an opportunity to amend national/provincial development policies. The policy makers should also consider that large-scale disasters frequently syphon off desperately needed resources from other initiatives, which has the unintended consequence of jeopardising development goals in other sections of the country. In such a scenario, integration of development needs with a disaster recovery plan becomes essential for the inclusive and overall development of the region.

- **Building Resilience**

The Covid 19 served as a sharp warning to us about what we can lose as a society if we do not prepare for natural disasters. The enormous collapse of lives, jobs, GDP, periods of schooling, and socio-economic advances, including the impact on people's psychological well-being has highlighted the necessity of establishing resilience prior to the occurrence of disaster. The tremendous shock to the world's financial activity caused by the pandemic emphasises the significance of having financial resilience in addition to physical resistance to any kind of crisis. Globally, governments around the world sprang into action, undertaking steps to prevent not only the spread of the epidemic but also the monetary and financial repercussions from the halt in business operations, emphasising governments' role in disaster response. Furthermore, nations where authorities had previously engaged in preparedness efforts reported reduced rates of infection and fatality statistics in the initial phases of the pandemic, highlighting the positive effects of pursuing resilience building.

In other than biological disaster, where physical destruction is the primary sphere, we should avoid the formation of new disaster risks and set up procedures to examine present construction processes, building codes and

regulations, land-use management/zoning plans and regulations, and bring adjustments as needed. Examination of national, provincial, and municipal disaster planning programmes must be done to assess if they appropriately include risk management practices.

- **Evaluating the Lessons Learnt**

The local authority, along with the state and centre, must create a register to keep track of the lessons learned. They must identify, for example, (i) the specific issue (including if the lesson requires amendment/adjustment to present arrangements or whether the lesson is a gap in existing arrangements), (ii) the area of responsibility/jurisdiction, and (iii) the applicable law/regulation the lesson comes under, and so on. They must include representatives from regions for future training, exercises, resource replenishment, and/or new purchases, among other things.

- **Providing Comprehensive Care to the Victims**

While catastrophes have an immediate impact on the afflicted people, the physical, economic, and social disruption implications are far-reaching, including the potential disruption of commercial supply chains, transportation, and other utility connecting networks. Depending on how integrated and dependent these and other systems are on the disaster region, they will also require help. Furthermore, catastrophe victims, families, acquaintances, and co-workers may require additional psycho-social care.

- **Creating an Exit Strategy**

We must include an escape strategy in the recovery efforts. The exit strategy is a methodical plan of action that allows the community to maintain its own recovery processes while withdrawing official help from the rehabilitation centre. National authorities, local governments, the commercial sector, and civil society are all important decision-makers. The exit strategy must incorporate the opinions of various stakeholders so that this transition creates no harm or disturbance.

5.7 LONG TERM RECOVERY: A WINDOW OF OPPO-RTUNITY FOR DEVELOPMENT

Despite the region's unfortunate predicament, the post-disaster period gives a window of opportunity for the government to take steps to mitigate risks and generously support rehabilitation to revitalise economic development. Based on prior disaster experience, there are various aspects of this post-disaster phase that can be capitalised on. For instance, the natural calamity has destroyed much of the built environment that was poorly constructed and susceptible, resulting in a fresh start in addressing disaster risk. Furthermore, the catastrophic experience generally creates new information, bringing various stakeholders together over a shared understanding of the nature of risk. Flaws of previous development policies and plans have been identified and may be corrected. Next, and more importantly, the political will to act is probably stronger than before. Any interest in disaster risk reduction that had been neglected or sidelined before the tragedy will suddenly resurface during the recovery phase. Similarly, the absence of risk reduction resources, the existence of corruption, and other poor institutional structures that allowed a susceptible physical environment

to be established have been emphasised. Finally, and probably most critically, the post-disaster period frequently provides a degree of funding that would otherwise be unavailable. If used effectively – which is far from guaranteed – this new resource provides a substantial opportunity to lessen vulnerability.

Building Back Better (BBB) is an approach to post-disaster recovery that reduces vulnerability to future disasters and builds community resilience to address physical, social, environmental and economic vulnerabilities and shocks. Risk reduction now permeates development activities. BBB applies to all aspects and sectors of post-disaster recovery. It supports communication, energy, health, housing, transport, water and sanitation (www.gfdrr.org/ recovery hub).

In recovery phase, the community attempts to restore the damage caused by the disaster. Short-term recovery commences immediately after the disaster and in this phase, development activities are accordingly planned depending on severity of disaster. Whereas, the long-term recovery and redevelopment takes time, the phrase long-term in the recovery process emphasises the need to reestablish the system and community that shall sustain itself over time.

Check Your Progress 3

Note: i) Use the space given below for your answers.

ii) Check your answers with those given at the end of the Unit.

1) Elaborate on the considerations for long-term recovery.

.....

.....

.....

.....

2) In what way is long-term recovery a window of development opportunity? Explain.

.....

.....

.....

.....

5.8 CONCLUSION

Disaster recovery is a long-term process, which requires constant indulgence of all stakeholders viz, local community, local government, central government, civil society groups, international organisations and society. With the new developments in science and technology, we have a larger domain of resources at our disposal but at the same time, we also have new challenges such as unforeseen biological disasters like Covid 19, climate change etc. Disaster mitigation and disaster preparedness should be a part of long-term recovery programmes, so that more lives and resources could be saved from the unexpected calamity. All aspects of recovery namely shelter, accountability, finance, community

participation and coordination play important roles to convert a disaster into an opportunity of development.

5.9 GLOSSARY

Building Back Better: This is commonly known as BBB. It means building greater resilience and reducing disaster risks by identifying and addressing root causes of vulnerability. The term was first used in 2004 in context of Aceh and Nias Tsunami in Indonesia and formally introduced by the United Nations in 2005. It lays focus on the role of communities in reconstruction and recovery.

Circularity of Risk: It means if there is risk at one phase of disaster cycle, it is bound to reach the other phases by the process of circular economy. The circular economy provides strategic solutions in encouraging sustainable development practices and the involvement of stakeholders and the public in sustainable development. Risk reduction needs to entail reduce, reuse, recycle and recover concepts at production, distribution and consumption stages.

5.10 REFERENCES AND FURTHER READINGS

Second ARC, 3rd Report (2005), 'Crisis Management: From Despair to Hope', Government of India.

Asian Development Bank Policy Note (2008), Recommendations for Dealing with the Transition from Disaster Response to Recovery.

Amaratunga, Dilanthi, Haigh, Richard and Hettige, Siri (2016), The Role of Accountability within Disaster Risk Governance. In: Proceedings of the 6th International Conference on Building Resilience. Massey University / The University of Auckland, Auckland, New Zealand, pp. 688¬698. ISBN 978¬0¬473¬37268-2.

Bradshaw S, 2002, Exploring the Gender Dimensions of Reconstruction Process Post-Hurricane Mitch, Journal of International Development, Vol.14, pp 871-879.

Haigh, R. and Amaratunga, D. (2011), "A Window of Opportunity", International Journal of Disaster Resilience in the Built Environment, Vol. 2 No. 2.

Kyne, Dean & Cisneros, Leslie & Delacruz, Josue & Lopez, Bianca & Madrid, Cristina & Moran, Rebecca & Provencio, Alma & Ramos, Felix & Silva, Maria. (2020), Empirical evaluation of disaster preparedness for hurricanes in the Rio Grande Valley. Progress in Disaster Science. 5. 100061. 10.1016/j.pdisas.2019.100061.

Nirooje Thurairajan *et al.* (2008), Post-disaster Reconstruction as an Opportunity for Development: Women's Perspectives,(https:/www.researchgate.net publication)

United Nations Office for Disaster Risk Reduction (2023), Building Disaster Resilience: A Study of Disaster Events and Financial Lending Streams, Economic Impact, pp. 59

5.11 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

1) Your answer should include the following points:

- Shelter
- Accountability
- Finance
- Community participation
- Coordination

Check Your Progress 2

1) Your answer should include the following points:

- Adequate procedures for frequent monitoring, oversight, and enforcement
- Training people in informal sector about building code and regulation
- Old procedures and methods do not reduce susceptibility but rebuild the same

Check Your Progress 3

1) Your answer should include following points:

- Poor constructions which were destroyed by calamity could be built better
- New information and experiences of disaster give better understanding of the nature of calamity
- Political stronger
- Provision of funding

2) Your answer should include following points:

- Making decisions based on empirical evidence
- Creation of recovery centre
- Using existing structure
- Debris management
- Involvement of the affected community
- Identify resources sources
- Explore development opportunities
- Build resilience
- Evaluate the lessons learnt
- Provide comprehensive care to the victims
- Create an exit strategy